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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,303	01/04/2006	Atsushi Tanno	OGW-0413	8394
24978	7590	11/15/2007		
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606			EXAMINER FISCHER, JUSTIN R	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 11/15/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,303	Applicant(s) TANNO ET AL.	
	Examiner Justin R. Fischer	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1406</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clydesdale (US 1,269,388). As best depicted in Figures 1-3, Clydesdale is directed to a pneumatic tire construction comprising a member (arrangement of thin, metal plates 10,11) and a metallic fixing band 14 (Lines 65-75). The reference, however, fails to disclose the thickness and width of said fixing band. In view of the general disclosure of Clydesdale, however, one of ordinary skill in the art at the time of the invention would have found it obvious to form the tire of Clydesdale in accordance to the claimed invention. While it is unclear if the figures are "working drawings", the fixing band is depicted as being relatively narrow (small axial extension) and thin (along the same lines as the member, which as noted above, is described as being thin)- in this instance, the figures appear to depict a structure that is on the order of the claimed invention (as pertains to dimensions). Additionally, the particular dimensions of such components are highly dependent on the specific tire being manufactured, and thus the tire size (tire components are generally scaled up with increasing tire size). Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of

the invention would have found it obvious to form the tire of Clydesdale in accordance to the claimed invention.

Regarding claims 7-9, Figure 2 depicts the fixing band 14 as having interfolded loops that engage one another (Lines 50-60)- such an arrangement is seen to constitute a "stretching mechanism" that allows the band to slide.

3. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Block (US 1,733,681) and further in view of Serban (RO 115859) and Clydesdale. Block substantially teaches the pneumatic tire of the claimed invention, including a member 3,10 and a fixing band 11. In describing the fixing band, Block suggests the use of a rubberized fabric, leather, or other flexible material (Page 2, Lines 20-30 and 50-55). While the reference fails to expressly disclose the use of a flexible/elastic metallic band, such metallic bands are commonly used in the tire industry and are recognized as equivalent alternatives to elastic bands formed of rubber/resin, as shown for example by Serban (Abstract). In this instance, Serban is directed to a similar flexible layer beneath the crown region of the tire and specifically suggests the alternate use of a highly flexible rubber and a steel strip having an elastic coating thereon. In view of this disclosure and the teaching by Block to use "other flexible materials", one of ordinary skill in the art at the time of the invention would have found it obvious to use a flexible/elastic metal to form the band of Block. Clydesdale is additionally cited to expressly recognize the known use of metallic materials for similar band constructions (band 14 is formed of metal). Lastly, the particular dimensions of the band (width and thickness) are highly dependent on the specific tire being manufactured, and thus the

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tire size (tire components are generally scaled up with increasing tire size), it being noted that the general depictions of Block appear to be on the order of the broad ranges of the claimed invention. Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to form the tire of Block in accordance to the claimed invention.

Regarding claim 3, as noted above, Serban suggest the alternate use of a steel strip having an elastic coating thereon.

With respect to claim 4, fixing band 11 is provided to protect the inner tube from the member 3 (Page 2, Lines 40-55). It appears that the disclosed tire constructions include an inner tube that is continuous over the circumferential extent of the tire. However, it is also well known to form the inner tube in a discontinuous manner (e.g. a plurality of circumferentially arranged inner tubes)- such a construction is commonly used in order to limit the effects of a puncture (restricted to single chamber/inner tube). In such an instance, each inner tube would be provided with a fixing band, wherein both the inner tube and fixing band would have a circumferential length less than that of the circumferential length of the tire. One of ordinary skill in the art at the time of the invention would have readily appreciated the broad range of the claimed invention absent any conclusive showing of unexpected results.

Regarding claim 5, strap 10, which is part of the member, can be formed of a rubberized fabric, leather, or other flexible material- each of these materials can be viewed in the general sense as being "porous" and forming a "sound absorbing

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material". It is suggested that applicant amend the claims to require specific materials and/or properties to define over the tire construction of Block.

As to claim 6, the fixing band 11 of Block has a fixed length.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Block, Serban, and Clydesdale as applied in claim 1 above and further in view of Gifflo (US 4,265,660) and Guerin (US 5,154,534). As detailed above, one of ordinary skill in the art at the time of the invention would have found it obvious to form the flexible fixing band of Block with a metallic material. In regards to the mechanical properties of the metallic material, the claimed are consistent with those associated with metallic materials, and more particularly metallic materials having a high degree of elasticity/flexibility, as shown for example by Gifflo (Column 2, Lines 61+) and Guerin (Column 1, Lines 25-35). Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to use a metallic material having a tensile strength between 400 and 1,400 MPa for the elastic/flexible band of Block in view of Serban and Clydesdale..

Conclusion

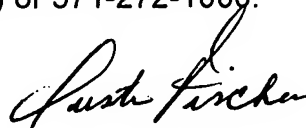
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Justin R Fischer
Primary Examiner
Art Unit 1791

JRF
October 31, 2007